

## APPENDIX 7: ANOVA SUMMARY TABLES

Appendix 7 contains the full summary tables for the eight ANOVA's conducted on the lane-keeping and velocity-maintenance performance measures. They are presented on the following pages in the same order in which they were discussed in section 3 of the main report.

**Table 43.** The ANOVA conducted to determine if average velocity was affected by group—whether the driver was in the experimental group (when the SSGCS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F      | p      |
|----------------------|--------------------|----------------|-------------|--------|--------|
| Group (G)            | 1                  | 17.372903      | 17.372903   | 3.41   | 0.0718 |
| Age (A)              | 1                  | 120.205402     | 120.205402  | 23.58  | 0.0001 |
| G x A                | 1                  | 1.397976       | 1.397976    | 0.27   | 0.6032 |
| Density (D)          | 1                  | 5.780741       | 5.780741    | 1.13   | 0.2928 |
| D x G                | 1                  | 0.093846       | 0.093846    | 0.02   | 0.8927 |
| D x A                | 1                  | 1.599087       | 1.599087    | 0.31   | 0.5783 |
| D x A x G            | 1                  | 0.519994       | 0.519994    | 0.10   | 0.7510 |
| S (w/ A x G x D)     | 43                 | 219.168298     | 5.096937    |        |        |
| Visibility (V)       | 2                  | 547.585163     | 273.792581  | 378.63 | 0.0001 |
| V x G                | 2                  | 0.007137       | 0.003569    | 0.00   | 0.9951 |
| V x A                | 2                  | 4.015944       | 2.007972    | 2.78   | 0.0680 |
| V x A x G            | 2                  | 1.735078       | 0.8675389   | 1.20   | 0.3064 |
| D x V                | 2                  | 2.606461       | 1.303230    | 1.80   | 0.1712 |
| D x V x G            | 2                  | 0.510637       | 0.255318    | 0.35   | 0.7036 |
| D x V x A            | 2                  | 1.793876       | 0.896938    | 1.24   | 0.2945 |
| D x V x G x A        | 2                  | 0.311801       | 0.155900    | 0.22   | 0.8065 |
| V x S (w/ A x G x D) | 84                 | 60.741492      | 0.723113    |        |        |

Table 44. The ANOVA conducted to determine if the minimum following distance (in seconds) was affected by group—whether the driver was in the experimental group (when the SSGCS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 1.457712       | 1.457712    | 0.48  | 0.4934 |
| Age (A)              | 1                  | 64.625963      | 64.625963   | 21.16 | 0.0001 |
| G x A                | 1                  | 3.646283       | 3.646283    | 1.19  | 0.2807 |
| Density (D)          | 1                  | 6.848698       | 6.848698    | 2.24  | 0.1416 |
| D x G                | 1                  | 5.192466       | 5.192466    | 1.70  | 0.1992 |
| D x A                | 1                  | 2.953424       | 2.953424    | 0.97  | 0.3309 |
| D x A x G            | 1                  | 5.729051       | 5.729051    | 1.88  | 0.1779 |
| S (w/ A x G x D)     | 43                 | 131.339056     | 3.054397    |       |        |
| Visibility (V)       | 2                  | 2.256260       | 1.128130    | 0.94  | 0.3964 |
| V x G                | 2                  | 6.035346       | 3.017673    | 2.50  | 0.0881 |
| V x A                | 2                  | 3.640435       | 1.820217    | 1.51  | 0.2270 |
| V x A x G            | 2                  | 9.388835       | 4.694417    | 3.89  | 0.0243 |
| D x V                | 2                  | 0.140094       | 0.070047    | 0.06  | 0.9436 |
| D x V x G            | 2                  | 4.904254       | 2.452127    | 2.03  | 0.1374 |
| D x V x A            | 2                  | 2.235174       | 1.117587    | 0.93  | 0.3998 |
| D x V x G x A        | 2                  | 1.811926       | 0.905963    | 0.75  | 0.4748 |
| V x S (w/ A x G x D) | 81                 | 97.626480      | 1.205265    |       |        |

Table 45. The ANOVA conducted to determine if the average actual gap was affected by group—whether the driver was in the experimental group (when the SSGCS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 5.4935784      | 5.4935784   | 4.97  | 0.0311 |
| Age (A)              | 1                  | 14.6669445     | 14.6669445  | 13.26 | 0.0007 |
| G x A                | 1                  | 0.5724932      | 0.5724932   | 0.52  | 0.4757 |
| Density (D)          | 1                  | 0.4778618      | 0.4778618   | 0.43  | 0.5144 |
| D x G                | 1                  | 0.0275126      | 0.0275126   | 0.02  | 0.8754 |
| D x A                | 1                  | 0.8432229      | 0.8432229   | 0.76  | 0.3874 |
| D x A x G            | 1                  | 0.0920512      | 0.0920512   | 0.08  | 0.7743 |
| S (w/ A x G x D)     | 43                 | 47.5452271     | 1.1057030   |       |        |
| Visibility (V)       | 2                  | 0.3019548      | 0.1509774   | 0.34  | 0.7154 |
| V x G                | 2                  | 1.2216514      | 0.6108257   | 1.36  | 0.2623 |
| V x A                | 2                  | 0.0620910      | 0.0310455   | 0.07  | 0.9332 |
| V x A x G            | 2                  | 0.3944525      | 0.1972263   | 0.44  | 0.6460 |
| D x V                | 2                  | 0.9180103      | 0.4590051   | 1.02  | 0.3643 |
| D x V x G            | 2                  | 0.3309323      | 0.1654661   | 0.37  | 0.6929 |
| D x V x A            | 2                  | 0.6029154      | 0.3014577   | 0.67  | 0.5138 |
| D x V x G x A        | 2                  | 0.9730579      | 0.4865290   | 1.08  | 0.3432 |
| V x S (w/ A x G x D) | 81                 | 36.3631881     | 0.4489282   |       |        |

Table 46. The ANOVA conducted to determine if the average gap setting was affected by group—whether the driver was in the experimental group (when the SSGCS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 0.7309536      | 0.7309536   | 0.34  | 0.5644 |
| Age (A)              | 1                  | 22.4407808     | 22.4407808  | 10.35 | 0.0025 |
| G x A                | 1                  | 0.0187384      | 0.0187384   | 0.01  | 0.9263 |
| Density (D)          | 1                  | 3.8786784      | 3.8786784   | 1.79  | 0.1880 |
| D x G                | 1                  | 2.0339382      | 2.0339382   | 0.94  | 0.3381 |
| D x A                | 1                  | 0.0003391      | 0.0003391   | 0.00  | 0.9901 |
| D x A x G            | 1                  | 1.3834100      | 1.3834100   | 0.64  | 0.4287 |
| S (w/ A x G x D)     | 43                 | 93.1932122     | 2.1672840   |       |        |
| Visibility (V)       | 2                  | 0.6533215      | 0.3266607   | 0.78  | 0.4622 |
| V x G                | 2                  | 0.3859558      | 0.1929779   | 0.46  | 0.6328 |
| V x A                | 2                  | 0.0282547      | 0.0141273   | 0.03  | 0.9669 |
| V x A x G            | 2                  | 0.7628940      | 0.3814470   | 0.91  | 0.4067 |
| D x V                | 2                  | 0.7576016      | 0.3788008   | 0.90  | 0.4092 |
| D x V x G            | 2                  | 0.2324912      | 0.1162456   | 0.28  | 0.7586 |
| D x V x A            | 2                  | 0.2600702      | 0.1300351   | 0.31  | 0.7342 |
| D x V x G x A        | 2                  | 0.5150447      | 0.2575223   | 0.61  | 0.5436 |
| V x S (w/ A x G x D) | 81                 | 33.9617913     | 0.4192814   |       |        |

Table 47. The ANOVA conducted to determine if steering instability was affected by group—whether the driver was in the experimental group (when only the CWS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F    | p      |
|----------------------|--------------------|----------------|-------------|------|--------|
| Group (G)            | 1                  | 0.04987882     | 0.04987882  | 4.63 | 0.0381 |
| Age (A)              | 1                  | 0.01435652     | 0.01435652  | 1.33 | 0.2558 |
| G x A                | 1                  | 0.00504152     | 0.00504152  | 0.47 | 0.4983 |
| Density (D)          | 1                  | 0.05734351     | 0.05734351  | 5.32 | 0.0268 |
| D x G                | 1                  | 0.00157931     | 0.00157931  | 0.15 | 0.7041 |
| D x A                | 1                  | 0.00000381     | 0.00000381  | 0.00 | 0.9851 |
| D x A x G            | 1                  | 0.00019790     | 0.00019790  | 0.02 | 0.8929 |
| S (w/ A x G x D)     | 37                 | 0.39877310     | 0.01077765  |      |        |
| Visibility (V)       | 2                  | 0.00439144     | 0.00219572  | 0.86 | 0.4281 |
| V x G                | 2                  | 0.00262457     | 0.00131228  | 0.51 | 0.6005 |
| V x A                | 2                  | 0.00629897     | 0.00314948  | 1.23 | 0.2984 |
| V x A x G            | 2                  | 0.00466973     | 0.00233487  | 0.92 | 0.4060 |
| D x V                | 2                  | 0.00024579     | 0.00012290  | 0.05 | 0.9530 |
| D x V x G            | 2                  | 0.00864802     | 0.00432401  | 1.70 | 0.1925 |
| D x V x A            | 2                  | 0.00590125     | 0.00295063  | 1.16 | 0.3216 |
| D x V x G x A        | 2                  | 0.00336730     | 0.00168365  | 0.66 | 0.5206 |
| V x S (w/ A x G x D) | 58                 | 0.14792475     | 0.00255043  |      |        |

Table 48. The ANOVA conducted to determine if the number of steering oscillations/min were affected by group—whether the driver was in the experimental group (when only the CWS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 1256.28728     | 1256.28728  | 43.89 | 0.0001 |
| Age (A)              | 1                  | 15.04787       | 15.04787    | 0.53  | 0.4730 |
| G x A                | 1                  | 117.87201      | 117.87201   | 4.12  | 0.0497 |
| Density (D)          | 1                  | 4.29795        | 4.29795     | 0.15  | 0.7006 |
| D x G                | 1                  | 1.83603        | 1.83603     | 0.06  | 0.8015 |
| D x A                | 1                  | 0.82566        | 0.82566     | 0.03  | 0.8661 |
| D x A x G            | 1                  | 31.63401       | 31.63401    | 1.11  | 0.3000 |
| S (w/ A x G x D)     | 37                 | 1059.06713     | 28.62344    |       |        |
| Visibility (V)       | 2                  | 214.13589      | 107.06794   | 10.85 | 0.0001 |
| V x G                | 2                  | 117.77033      | 58.88516    | 5.97  | 0.0044 |
| V x A                | 2                  | 62.55992       | 31.27996    | 3.17  | 0.0492 |
| V x A x G            | 2                  | 79.85840       | 39.92920    | 4.05  | 0.0225 |
| D x V                | 2                  | 23.14491       | 11.57246    | 1.17  | 0.3165 |
| D x V x G            | 2                  | 27.10368       | 13.55184    | 1.37  | 0.2611 |
| D x V x A            | 2                  | 4.47462        | 2.23731     | 0.23  | 0.7978 |
| D x V x G x A        | 2                  | 67.37304       | 33.68652    | 3.41  | 0.0395 |
| V x S (w/ A x G x D) | 59                 | 581.99654      | 9.86435     |       |        |

Table 49. The ANOVA conducted to determine if the average velocity was affected by group—whether the driver was in the experimental group (when only the CWS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F      | p      |
|----------------------|--------------------|----------------|-------------|--------|--------|
| Group (G)            | 1                  | 7.255068       | 7.255068    | 1.25   | 0.2699 |
| Age (A)              | 1                  | 115.876738     | 115.876738  | 20.04  | 0.0001 |
| G x A                | 1                  | 0.109023       | 0.109023    | 0.02   | 0.8915 |
| Density (D)          | 1                  | 6.167485       | 6.167485    | 1.07   | 0.3085 |
| D x G                | 1                  | 0.027364       | 0.027364    | 0.00   | 0.9455 |
| D x A                | 1                  | 6.209395       | 6.209395    | 1.07   | 0.3068 |
| D x A x G            | 1                  | 0.612591       | 0.612591    | 0.11   | 0.7467 |
| S (w/ A x G x D)     | 37                 | 213.987099     | 5.783435    |        |        |
| Visibility (V)       | 2                  | 334.829328     | 167.414664  | 289.13 | 0.0001 |
| V x G                | 2                  | 4.526930       | 2.263465    | 3.91   | 0.0254 |
| V x A                | 2                  | 7.625705       | 3.812852    | 6.58   | 0.0026 |
| V x A x G            | 2                  | 2.295161       | 1.147581    | 1.98   | 0.1467 |
| D x V                | 2                  | 3.662095       | 1.831048    | 3.16   | 0.0495 |
| D x V x G            | 2                  | 1.643324       | 0.821662    | 1.42   | 0.2499 |
| D x V x A            | 2                  | 0.123408       | 0.061704    | 0.11   | 0.8991 |
| D x V x G x A        | 2                  | 1.079960       | 0.539980    | 0.93   | 0.3992 |
| V x S (w/ A x G x D) | 60                 | 34.741536      | 0.579026    |        |        |

Table 50. The ANOVA conducted to determine if the velocity instability was affected by group—whether the driver was in the experimental group (when only the CWS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 13.1808974     | 13.1808974  | 51.49 | 0.0001 |
| Age (A)              | 1                  | 0.0281315      | 0.0281315   | 0.11  | 0.7421 |
| G x A                | 1                  | 0.0088072      | 0.0088072   | 0.03  | 0.8539 |
| Density (D)          | 1                  | 0.0001257      | 0.0001257   | 0.00  | 0.9824 |
| D x G                | 1                  | 0.1671248      | 0.1671248   | 0.65  | 0.4243 |
| D x A                | 1                  | 0.0877755      | 0.0877755   | 0.34  | 0.5617 |
| D x A x G            | 1                  | 0.1737210      | 0.1737210   | 0.68  | 0.4153 |
| S (w/ A x G x D)     | 37                 | 9.4714475      | 0.2559851   |       |        |
| Visibility (V)       | 2                  | 0.1423154      | 0.0711577   | 0.63  | 0.5337 |
| V x G                | 2                  | 0.9654707      | 0.4827353   | 4.31  | 0.0179 |
| V x A                | 2                  | 0.1736361      | 0.0868181   | 0.77  | 0.4656 |
| V x A x G            | 2                  | 1.1396384      | 0.5698192   | 5.08  | 0.0091 |
| D x V                | 2                  | 0.5841212      | 0.2920606   | 2.60  | 0.0823 |
| D x V x G            | 2                  | 0.2030614      | 0.1015307   | 0.91  | 0.4098 |
| D x V x A            | 2                  | 0.2644329      | 0.1322164   | 1.18  | 0.3146 |
| D x V x G x A        | 2                  | 0.1646264      | 0.0823132   | 0.73  | 0.4842 |
| V x S (w/ A x G x D) | 60                 | 6.7279470      | 0.1121324   |       |        |

Table 51. The ANOVA conducted to determine if the number of velocity fluctuations was affected by group—whether the driver was in the experimental group (when only the CWS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 3137.03975     | 3137.03975  | 63.20 | 0.0001 |
| Age (A)              | 1                  | 20.83980       | 20.83980    | 0.42  | 0.5210 |
| G x A                | 1                  | 84.36627       | 84.36627    | 1.70  | 0.2004 |
| Density (D)          | 1                  | 30.24884       | 30.24884    | 0.61  | 0.4400 |
| D x G                | 1                  | 28.07274       | 28.07274    | 0.57  | 0.4568 |
| D x A                | 1                  | 1.72388        | 1.72388     | 0.03  | 0.8532 |
| D x A x G            | 1                  | 2.47876        | 2.47876     | 0.05  | 0.8244 |
| S (w/ A x G x D)     | 37                 | 1836.60034     | 49.63785    |       |        |
| Visibility (V)       | 2                  | 3.87886        | 1.93943     | 0.10  | 0.9066 |
| V x G                | 2                  | 2.85519        | 1.42759     | 0.07  | 0.9304 |
| V x A                | 2                  | 125.04900      | 62.52450    | 3.16  | 0.0496 |
| V x A x G            | 2                  | 136.69280      | 68.34640    | 3.46  | 0.0381 |
| D x V                | 2                  | 94.09232       | 47.04616    | 2.38  | 0.1014 |
| D x V x G            | 2                  | 127.31727      | 63.65863    | 3.22  | 0.0471 |
| D x V x A            | 2                  | 166.06309      | 83.03154    | 4.20  | 0.0197 |
| D x V x G x A        | 2                  | 159.24014      | 79.62007    | 4.03  | 0.0230 |
| V x S (w/ A x G x D) | 58                 | 1145.81513     | 19.75543    |       |        |

Table 52. The ANOVA conducted to determine if the minimum following distance (in meters) was affected by group—whether the driver was in the experimental group (when only the CWS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 0.6574         | 0.6574      | 0.00  | 0.9757 |
| Age (A)              | 1                  | 8027.7871      | 8027.7871   | 11.45 | 0.0018 |
| G x A                | 1                  | 2247.7070      | 2247.7070   | 3.21  | 0.0820 |
| Density (D)          | 1                  | 5715.2760      | 5715.2760   | 8.15  | 0.0072 |
| D x G                | 1                  | 333.1561       | 333.1561    | 0.48  | 0.4952 |
| D x A                | 1                  | 718.5606       | 718.5606    | 1.02  | 0.3183 |
| D x A x G            | 1                  | 342.2983       | 342.2983    | 0.49  | 0.4893 |
| S (w/ A x G x D)     | 35                 | 24539.2262     | 701.1207    |       |        |
| Visibility (V)       | 2                  | 3744.2053      | 1872.1027   | 5.73  | 0.0058 |
| V x G                | 2                  | 558.3233       | 279.1616    | 0.85  | 0.4316 |
| V x A                | 2                  | 4531.1515      | 2265.5758   | 6.94  | 0.0022 |
| V x A x G            | 2                  | 16.8260        | 8.4130      | 0.03  | 0.9746 |
| D x V                | 2                  | 82.3767        | 41.1883     | 0.13  | 0.8818 |
| D x V x G            | 2                  | 515.6386       | 257.8193    | 0.79  | 0.4598 |
| D x V x A            | 2                  | 2119.6504      | 1059.8252   | 3.25  | 0.0475 |
| D x V x G x A        | 2                  | 587.6189       | 293.8095    | 0.90  | 0.4133 |
| V x S (w/ A x G x D) | 49                 | 16002.1032     | 326.5735    |       |        |

Table 53. The ANOVA conducted to determine if the average actual gap was affected by group—whether the driver was in the experimental group (when only the CWS was being used) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 2.5603545      | 2.5603545   | 2.23  | 0.1441 |
| Age (A)              | 1                  | 11.5484117     | 11.5484117  | 10.06 | 0.0031 |
| G x A                | 1                  | 0.3220493      | 0.3220493   | 0.28  | 0.5996 |
| Density (D)          | 1                  | 2.9296638      | 2.9296638   | 2.55  | 0.1189 |
| D x G                | 1                  | 1.6098531      | 1.6098531   | 1.40  | 0.2441 |
| D x A                | 1                  | 0.8434683      | 0.8434683   | 0.73  | 0.3971 |
| D x A x G            | 1                  | 0.0191118      | 0.0191118   | 0.02  | 0.8981 |
| S (w/ A x G x D)     | 36                 | 41.3374278     | 1.1482619   |       |        |
| Visibility (V)       | 2                  | 0.4135003      | 0.2067502   | 0.42  | 0.6619 |
| V x G                | 2                  | 0.3111279      | 0.1555640   | 0.31  | 0.7327 |
| V x A                | 2                  | 0.5793989      | 0.2896994   | 0.58  | 0.5618 |
| V x A x G            | 2                  | 0.2304163      | 0.1152082   | 0.23  | 0.7940 |
| D x V                | 2                  | 0.1629383      | 0.0814692   | 0.16  | 0.8493 |
| D x V x G            | 2                  | 0.4582332      | 0.2291166   | 0.46  | 0.6332 |
| D x V x A            | 2                  | 0.9981029      | 0.4990514   | 1.00  | 0.3730 |
| D x V x G x A        | 2                  | 1.4110153      | 0.7055077   | 1.42  | 0.2504 |
| V x S (w/ A x G x D) | 58                 | 28.8546553     | 0.4974941   |       |        |

Table 54. The ANOVA conducted to determine if steering instability was affected by group—whether the driver was in the experimental group (when both the SSGCS and the CWS were disengaged) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F    | p      |
|----------------------|--------------------|----------------|-------------|------|--------|
| Group (G)            | 1                  | 0.04697795     | 0.04697795  | 5.31 | 0.0269 |
| Age (A)              | 1                  | 0.01289196     | 0.01289196  | 1.46 | 0.2351 |
| G x A                | 1                  | 0.00105782     | 0.00105782  | 0.12 | 0.7315 |
| Density (D)          | 1                  | 0.00846733     | 0.00846733  | 0.96 | 0.3343 |
| D x G                | 1                  | 0.01459340     | 0.01459340  | 1.65 | 0.2071 |
| D x A                | 1                  | 0.00798987     | 0.00798987  | 0.90 | 0.3482 |
| D x A x G            | 1                  | 0.00660883     | 0.00660883  | 0.75 | 0.3931 |
| S (w/ A x G x D)     | 37                 | 0.32743927     | 0.00884971  |      |        |
| Visibility (V)       | 2                  | 0.00021176     | 0.00010588  | 0.04 | 0.9590 |
| V x G                | 2                  | 0.00212797     | 0.00106399  | 0.42 | 0.6595 |
| V x A                | 2                  | 0.00302274     | 0.00151137  | 0.60 | 0.5551 |
| V x A x G            | 2                  | 0.02566789     | 0.01283394  | 5.08 | 0.0111 |
| D x V                | 2                  | 0.00003179     | 0.00001590  | 0.01 | 0.9937 |
| D x V x G            | 2                  | 0.00484456     | 0.00242228  | 0.96 | 0.3927 |
| D x V x A            | 2                  | 0.00010911     | 0.00005456  | 0.02 | 0.9787 |
| D x V x G x A        | 2                  | 0.00527032     | 0.00263516  | 1.04 | 0.3625 |
| V x S (w/ A x G x D) | 38                 | 0.09608113     | 0.00252845  |      |        |

Table 55. The ANOVA conducted to determine if the number of steering oscillations/min were affected by group—whether the driver was in the experimental group (when both the SSGCS and the CWS were disengaged) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 906.965298     | 906.965298  | 75.60 | 0.0001 |
| Age (A)              | 1                  | 22.531485      | 22.531485   | 1.88  | 0.1793 |
| G x A                | 1                  | 97.648718      | 97.648718   | 8.14  | 0.0072 |
| Density (D)          | 1                  | 38.067678      | 38.067678   | 3.17  | 0.0835 |
| D x G                | 1                  | 31.674074      | 31.674074   | 2.64  | 0.1132 |
| D x A                | 1                  | 27.888671      | 27.888671   | 2.32  | 0.1363 |
| D x A x G            | 1                  | 75.942796      | 75.942796   | 6.33  | 0.0166 |
| S (w/ A x G x D)     | 35                 | 419.876340     | 11.996467   |       |        |
| Visibility (V)       | 2                  | 150.521683     | 75.260842   | 18.75 | 0.0001 |
| V x G                | 2                  | 16.560468      | 8.280234    | 2.06  | 0.1418 |
| V x A                | 2                  | 49.339075      | 24.669538   | 6.15  | 0.0050 |
| V x A x G            | 2                  | 50.452007      | 25.226004   | 6.29  | 0.0046 |
| D x V                | 2                  | 3.912726       | 1.956363    | 0.49  | 0.6182 |
| D x V x G            | 2                  | 2.707522       | 1.353761    | 0.34  | 0.7159 |
| D x V x A            | 2                  | 28.451176      | 14.225588   | 3.54  | 0.0393 |
| D x V x G x A        | 1                  | 2.763203       | 1.381601    | 0.34  | 0.7110 |
| V x S (w/ A x G x D) | 36                 | 144.470425     | 4.013067    |       |        |

Table 56. The ANOVA conducted to determine if the average velocity was affected by group—whether the driver was in the experimental group (when both the SSGCS and the CWS were disengaged) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F      | p      |
|----------------------|--------------------|----------------|-------------|--------|--------|
| Group (G)            | 1                  | 0.487470       | 0.487470    | 0.07   | 0.7894 |
| Age (A)              | 1                  | 79.103969      | 79.103969   | 11.74  | 0.0015 |
| G x A                | 1                  | 0.929216       | 0.929216    | 0.14   | 0.7124 |
| Density (D)          | 1                  | 4.373273       | 4.373273    | 0.65   | 0.4255 |
| D x G                | 1                  | 0.094866       | 0.094866    | 0.01   | 0.9062 |
| D x A                | 1                  | 0.140148       | 0.140148    | 0.02   | 0.8861 |
| D x A x G            | 1                  | 1.025474       | 1.025474    | 0.15   | 0.6986 |
| S (w/ A x G x D)     | 37                 | 249.228133     | 6.735895    |        |        |
| Visibility (V)       | 2                  | 187.331468     | 93.665734   | 118.83 | 0.0001 |
| V x G                | 2                  | 3.115006       | 1.557503    | 1.98   | 0.1526 |
| V x A                | 2                  | 2.938561       | 1.469280    | 1.86   | 0.1689 |
| V x A x G            | 2                  | 1.107256       | 0.553628    | 0.70   | 0.5017 |
| D x V                | 2                  | 2.918066       | 1.459033    | 1.85   | 0.1710 |
| D x V x G            | 2                  | 5.715056       | 2.857528    | 3.63   | 0.0362 |
| D x V x A            | 2                  | 1.440340       | 0.720170    | 0.91   | 0.4097 |
| D x V x G x A        | 2                  | 2.499306       | 1.249653    | 1.59   | 0.2181 |
| V x S (w/ A x G x D) | 38                 | 29.952515      | 0.788224    |        |        |

Table 57. The ANOVA conducted to determine if the velocity instability was affected by group—whether the driver was in the experimental group (when both the SSGCS and the CWS were disengaged) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 10.8559986     | 10.8559986  | 41.12 | 0.0001 |
| Age (A)              | 1                  | 0.1029537      | 0.1029537   | 0.39  | 0.5362 |
| G x A                | 1                  | 0.1488575      | 0.1488575   | 0.56  | 0.4575 |
| Density (D)          | 1                  | 0.0034329      | 0.0034329   | 0.01  | 0.9098 |
| D x G                | 1                  | 0.1427672      | 0.1427672   | 0.54  | 0.4668 |
| D x A                | 1                  | 0.0297818      | 0.0297818   | 0.11  | 0.7389 |
| D x A x G            | 1                  | 0.1585509      | 0.1585509   | 0.60  | 0.4433 |
| S (w/ A x G x D)     | 37                 | 9.7683887      | 0.2640105   |       |        |
| Visibility (V)       | 2                  | 0.5055148      | 0.2527574   | 1.53  | 0.2290 |
| V x G                | 2                  | 0.4865199      | 0.2432599   | 1.47  | 0.2416 |
| V x A                | 2                  | 0.3036209      | 0.1518104   | 0.92  | 0.4070 |
| V x A x G            | 2                  | 0.5812747      | 0.2906374   | 1.76  | 0.1854 |
| D x V                | 2                  | 0.2047127      | 0.1023563   | 0.62  | 0.5430 |
| D x V x G            | 2                  | 0.5687270      | 0.2843635   | 1.72  | 0.1920 |
| D x V x A            | 2                  | 0.0533787      | 0.0266893   | 0.16  | 0.8512 |
| D x V x G x A        | 2                  | 0.3037004      | 0.1518502   | 0.92  | 0.4069 |
| V x S (w/ A x G x D) | 38                 | 6.2671642      | 0.1649254   |       |        |

Table 58. The ANOVA conducted to determine if the number of velocity fluctuations was affected by group—whether the driver was in the experimental group (when both the SSGCS and the CWS were disengaged) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 1809.29672     | 1809.29672  | 24.41 | 0.0001 |
| Age (A)              | 1                  | 162.64355      | 162.64355   | 2.19  | 0.1475 |
| G x A                | 1                  | 254.47126      | 254.47126   | 3.43  | 0.0723 |
| Density (D)          | 1                  | 89.61962       | 89.61962    | 1.21  | 0.2790 |
| D x G                | 1                  | 86.69624       | 86.69624    | 1.17  | 0.2869 |
| D x A                | 1                  | 20.68803       | 20.68803    | 0.28  | 0.6006 |
| D x A x G            | 1                  | 24.32560       | 24.32560    | 0.33  | 0.5704 |
| S (w/ A x G x D)     | 35                 | 2594.06512     | 74.11615    |       |        |
| Visibility (V)       | 2                  | 45.91350       | 22.95675    | 17.24 | 0.0001 |
| V x G                | 2                  | 28.20996       | 14.10498    | 10.59 | 0.0002 |
| V x A                | 2                  | 16.61116       | 8.30558     | 6.24  | 0.0046 |
| V x A x G            | 2                  | 17.02897       | 8.51449     | 6.39  | 0.0041 |
| D x V                | 2                  | 16.22153       | 8.11076     | 6.09  | 0.0052 |
| D x V x G            | 2                  | 12.63905       | 6.31953     | 4.75  | 0.0146 |
| D x V x A            | 2                  | 34.08150       | 17.04075    | 12.80 | 0.0001 |
| D x V x G x A        | 1                  | 48.81588       | 48.81588    | 36.66 | 0.0001 |
| V x S (w/ A x G x D) | 37                 | 49.27518       | 1.33176     |       |        |

Table 59. The ANOVA conducted to determine if the minimum following distance (in meters) was affected by group—whether the driver was in the experimental group (when both the SSGCS and the CWS were disengaged) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F    | p      |
|----------------------|--------------------|----------------|-------------|------|--------|
| Group (G)            | 1                  | 1636.7172      | 1636.7172   | 2.41 | 0.1330 |
| Age (A)              | 1                  | 3989.2997      | 3989.2997   | 5.86 | 0.0227 |
| G x A                | 1                  | 2099.3885      | 2099.3885   | 3.09 | 0.0908 |
| Density (D)          | 1                  | 208.4740       | 208.4740    | 0.31 | 0.5846 |
| D x G                | 1                  | 867.9448       | 867.9448    | 1.28 | 0.2690 |
| D x A                | 1                  | 0.0864         | 0.0864      | 0.00 | 0.9911 |
| D x A x G            | 1                  | 1615.9428      | 1615.9428   | 2.38 | 0.1354 |
| S (w/ A x G x D)     | 26                 | 17689.0061     | 680.3464    |      |        |
| Visibility (V)       | 2                  | 3324.5938      | 1662.2969   | 5.75 | 0.0081 |
| V x G                | 2                  | 512.4505       | 256.2253    | 0.89 | 0.4233 |
| V x A                | 2                  | 2736.2175      | 1368.1088   | 4.73 | 0.0169 |
| V x A x G            | 0                  | 0.0000         | -           | -    | -      |
| D x V                | 2                  | 1009.3426      | 504.6713    | 1.75 | 0.1929 |
| D x V x G            | 1                  | 602.3138       | 602.3138    | 2.08 | 0.1599 |
| D x V x A            | 2                  | 359.9440       | 179.9720    | 0.62 | 0.5437 |
| D x V x G x A        | 0                  | 0.0000         | -           | -    | -      |
| V x S (w/ A x G x D) | 28                 | 8091.1096      | 288.9682    |      |        |

Table 60. The ANOVA conducted to determine if the average actual gap was affected by group—whether the driver was in the experimental group (when both the SSGCS and the CWS were disengaged) or the control group—the age of the driver, the density of traffic, or the level of visibility.

| Source               | Degrees of Freedom | Sum of Squares | Mean Square | F     | p      |
|----------------------|--------------------|----------------|-------------|-------|--------|
| Group (G)            | 1                  | 0.6494415      | 0.6494415   | 0.63  | 0.4324 |
| Age (A)              | 1                  | 16.187230      | 16.187230   | 15.71 | 0.0003 |
| G x A                | 1                  | 1.0305836      | 1.0305836   | 1.00  | 0.3238 |
| Density (D)          | 1                  | 0.0042700      | 0.0042700   | 0.00  | 0.9490 |
| D x G                | 1                  | 0.0852388      | 0.0852388   | 0.08  | 0.7753 |
| D x A                | 1                  | 0.0127410      | 0.0127410   | 0.01  | 0.9121 |
| D x A x G            | 1                  | 0.9288284      | 0.9288284   | 0.90  | 0.3486 |
| S (w/ A x G x D)     | 37                 | 38.1359029     | 1.0307001   |       |        |
| Visibility (V)       | 2                  | 6.9772624      | 3.4886312   | 6.92  | 0.0030 |
| V x G                | 2                  | 4.5511117      | 2.2755558   | 4.51  | 0.0182 |
| V x A                | 2                  | 3.3242315      | 1.6621157   | 3.30  | 0.0491 |
| V x A x G            | 2                  | 5.7277787      | 2.8638893   | 5.68  | 0.0074 |
| D x V                | 2                  | 1.8530696      | 0.9265348   | 1.84  | 0.1746 |
| D x V x G            | 2                  | 1.7659544      | 0.8829772   | 1.75  | 0.1888 |
| D x V x A            | 2                  | 1.1426171      | 0.5713085   | 1.13  | 0.3338 |
| D x V x G x A        | 2                  | 0.6585024      | 0.3292512   | 0.65  | 0.5268 |
| V x S (w/ A x G x D) | 34                 | 17.1384355     | 0.5040716   |       |        |